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SOV/181-1-9-27/31

On the Problem Concerning the Nature of the Surface Recombination Centers on Germanium

conductivity on the transversal electric field in the dark, the interval between the two curves illustrates the value of the steady photoconductivity. Measurements were made on p-type germanium samples with a resistivity of 20-25 ohm.cm. The maximum preheating temperature was 475°K. Measurements were made in vacuum (10^{-6} torr) at 300°K. Figure 2 shows on a semi-logarithmic scale the dependence of the maximum surface recombination rate on the reciprocal sample temperature. The activation energy of the centers, evaluated from the inclination of the linear curve portion yielded ~ 0.2 ev, their maximum concentration in the saturation region $\sim 10^{12}/cm^2$. When assuming that a concentration increase of the recombination centers is due to desorption of water molecules, the adsorption heat can be calculated as being 4.5 kcal/mole. In the samples under investigation the ratio of the capture cross sections for holes and electrons was ranging from 2 to 100, the recombination levels ranged between 3 - 6 kT. The results obtained are utilized by the authors in order to discuss their surface model of germanium and in order to explain further details of the adsorption-desorption

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On the Problem Concerning the Nature of the Surface Recombination Centers on Germanium SOV/181-1-9-27/31

mechanism. The authors thank S. V. Pokrovskaya and T.I.Galkina for their assistance. There are 2 figures and 4 Soviet references.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR Moskva (Institute of Physics imeni P. N. Lebedev of the AS USSR, Moscow)

SUBMITTED: April 6, 1959

4

Card 3/3

RZHANOV, A.V.; NOVOTOTSKIY-VLASOV, Yu.F.; NEIZVESTNYY, I.G.; POKROVSKAYA, S.V.; GALKINA, T.I.

Nature of surface recombination centers in germanium. Fiz. tver. tela 3 no. 3:822-831 Mr '61. (MIRA 14:5)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR, Moskva.
(Crystal lattices) (Germanium)

/211/313/056

AUTHORS: Rzhanov, A. V., and Neizvestnyy, I. G.

TITLE: The influence of molecule adsorption on germanium upon the parameters of the surface recombination centers

PERIODICAL: Fizika tverdogo tela, v. 3, no. [illegible], 3317-3323

TEXT: The authors have already published several papers on adsorption effects. They have shown that the density of recombination centers depends in a compensative and reversible manner on the polarity of the adsorbed molecules. The fact that the surface recombination centers are neutralized by adsorbed molecules could be explained on the assumption of chemical or electrostatic processes taking place between adsorbent and recombination center. In order to find out which possibility really holds, the authors used a field effect method to study how the recombination parameters change when adsorbed water molecules are substituted by ether or benzene. The surface recombination rate, and the charge trapped by fast surface states were recorded as functions of the surface potential. For this purpose the germanium samples were placed in a mica holder with transparent electrodes

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providing a transverse field independent of the liquid investigated. The whole arrangement was placed in a special thermostatic vessel. The surface recombination rates as functions of the surface potential Y with and without heat treatment of the specimens are shown in Figs. 1,2. The trapped negative charge was found to increase with increasing Y in a weakly non-linear manner; after heat treatment (150°C) the increase was more rapidly. The maximum surface recombination rates were found to be between 820 cm/sec (3.4 kT/q, c. f. Fig. 1, a[illegible]) cm/sec (3.0 kT/q, in benzene and between 460 cm/sec (5.5 kT/q) and 2[illegible] cm/sec (6.2 kT/q) in ether. From the experiments made with benzene it was found that in the nonpolar benzene the surface recombination centers are activated in the same manner as in vacuo and that the characteristics of the recombination centers are in no way affected by benzene. In ether, which is weakly polar, the surface recombination centers are activated in the same manner as in benzene or in vacuo. Adsorption of ether leads only to a shift the maxima of $S(Y_s)$ (Fig. 1) from +3kT/q (where they are for ternary vacuum) to + 6kT/q. The results indicate that the adsorption of ether germanium is a physical process. The [illegible] between ether and

germanium is purely electrostatic. There are 4 figures, 1 table, and 6 references: 5 Soviet and 1 non-Soviet. The latter reads as follows: M. Lax. Phys. Rev. 119, no. 5, 1502, 1960.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR Moskva
(Physics Institute imeni P. N. Lebedev AS USSR, Moscow)

SUBMITTED: May 22, 1961

Fig. 1. Surface recombination rate as a function of the surface potential before heating (1) and after heating at 350°K (2), 400°K (3), 450°K (4) and 500°K (5) in ether.

Fig. 2. The same for benzene.

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29609
S/12 /61/000/004/019/034
E036/E335

24,7700 (1164, 1385, 1559)

AUTHORS Novotskiy-Vlasov Yu F and Neizvestnyy I G

TITLE Apparatus for investigating the surface states of germanium

PERIODICAL Pribory i tekhnika eksperimenta no. 4 1961 pp 127 - 131

TEXT This article describes the method and apparatus used for studying "fast" surface states by a combination of the large signal field effect and the stationary photoconductivity methods. The method of heating the sample up to 750 °K by a current is also described A qualitative account is first given of the field effect method of varying the surface potential of the sample by means of a capacitatively applied field This results in moving the Fermi level at the surface with respect to the surface recombination centres By measuring the surface recombination velocity S as a function of the surface potential, information about the trap parameters is obtained. For applying the field a metal electrode is used with a mica spacer (8 - 10 μ) between the metal and the sample surface. Using a sinusoidal

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Apparatus for investigating . .

voltage of 100 - 200 V it is possible to cover the surface with a charge of 10^{7} coulomb/cm^{2}. The range of surface potentials covered is 12 15 kT/q (k is the Boltzmann constant, T is the absolute temperature and q the electronic charge). If the frequency is in the range 20 - 100 cycles the fast states are in equilibrium at any instant whilst the slow states do not screen the field. The large amplitude of the applied field makes it possible to observe a minimum in the sample conductance Using Brown s method of calculation (Ref. 1 - Phys. Rev. 1955 100 590) the surface potential φ_S is calculated, together with the charge captured by the fast states. By illuminating the specimen with an alternating light source, at a frequency which is not a harmonic of the varying field, two field effect curves are obtained dark and illuminated. The light intensity is selected so that the electrostatic potential on the illuminated field effect curve coincides with the dark curve. The photoconductivity is simply related to the difference between the two curves at any given

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Apparatus for investigating ..

potential and this in turn is proportional to the effective lifetime. Assuming that the diffusion length is greater than several times the sample thickness (h), the surface recombination rates on both illuminated and dark surfaces are identical and making various simplifying assumptions, then the effective lifetime τ_{eff} is simply related to the bulk lifetime τ_o and the surface recombination velocity

$$\Delta G = K\tau_{eff} = K(\tau_o^{-1} + 2S/h)^{1} \qquad (4) .$$

Here, $K \equiv e(\mu_n + \mu_p)R$ where μ_n μ_p are the electron and hole mobilities and R is the carrier generation rate at the surface. To obtain the same recombination rates on both sides of the thin sample, the field is applied to both surfaces, using a transparent metal electrode to facilitate the illumination. The sample holder of quartz is polished to a precision of 0.1 μ and a layer of tin oxide deposited by sublimation of the chloride in air at 380 °C. This layer is 90% transparent with a

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E036/E335

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resistance of 150 - 200 Ω. The light source is varied at 140 c.p.s. By using an intense source values of S up to 1.10^4 - 2.10^4 cm/sec can be determined. For calibration the lifetime is measured by the photo-conductive decay method with the applied field switched off. A block circuit diagram is given for the measuring equipment. In addition to a generator for applying the field to the sample, measured with a valve voltmeter, the range of φ_s may be extended by using batteries The displacement currents across the field effect capacitance are balanced out by a simple bridge circuit. For this reason neither end of the sample could be grounded and it was necessary to employ an amplifier with a balanced input The two ends were connected through cathode followers to the grid and cathode respectively, of the intput tube. From the anode the signal was fed with negative feedback to an amplifier with a passband of 2 cycles to 2 megacycles and a gain of about 100. From here it was fed to the vertical plates of an oscilloscope The sinusoidal voltage from the field effect generator was fed to the

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horizontal plates through a phase-shifter The signal was calibrated using a pulse of known amplitude An additional feature of the apparatus is that the sample is heated by passing a current through it and by this means the recombination-level properties can be measured as a function of temperature. An advantage is that contamination from the hotter parts of the apparatus in the usual method is avoided and lower temperature contacts can be used. The sample temperature can be found from the known variation of resistivity with temperature as the samples are in the intrinsic range (28 - 32 Ω cm). Using a bridge circuit to supply the current the temperature is maintained within 1 - 2 °K uniformly over the sample length up to 750 °K. The method is particularly useful for measuring fast surface recombination rates, as on silicon, and has been successfully used in the laboratory for several years An acknowledgment is made to L.V. Rzhanov. There are 4 figures and 4 non-Soviet-block references (all English-language): Ref. 1 - quoted in text; Ref. 2 - C.G.B. Garret, W.H. Brattain - Phys Rev., 1955, 99, 376; Ref. 3 - J.R. Schrieffer - Phys. Rev 1955, 97,

Card 5/6

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S/120/61/000/004/019/034
E036/E335

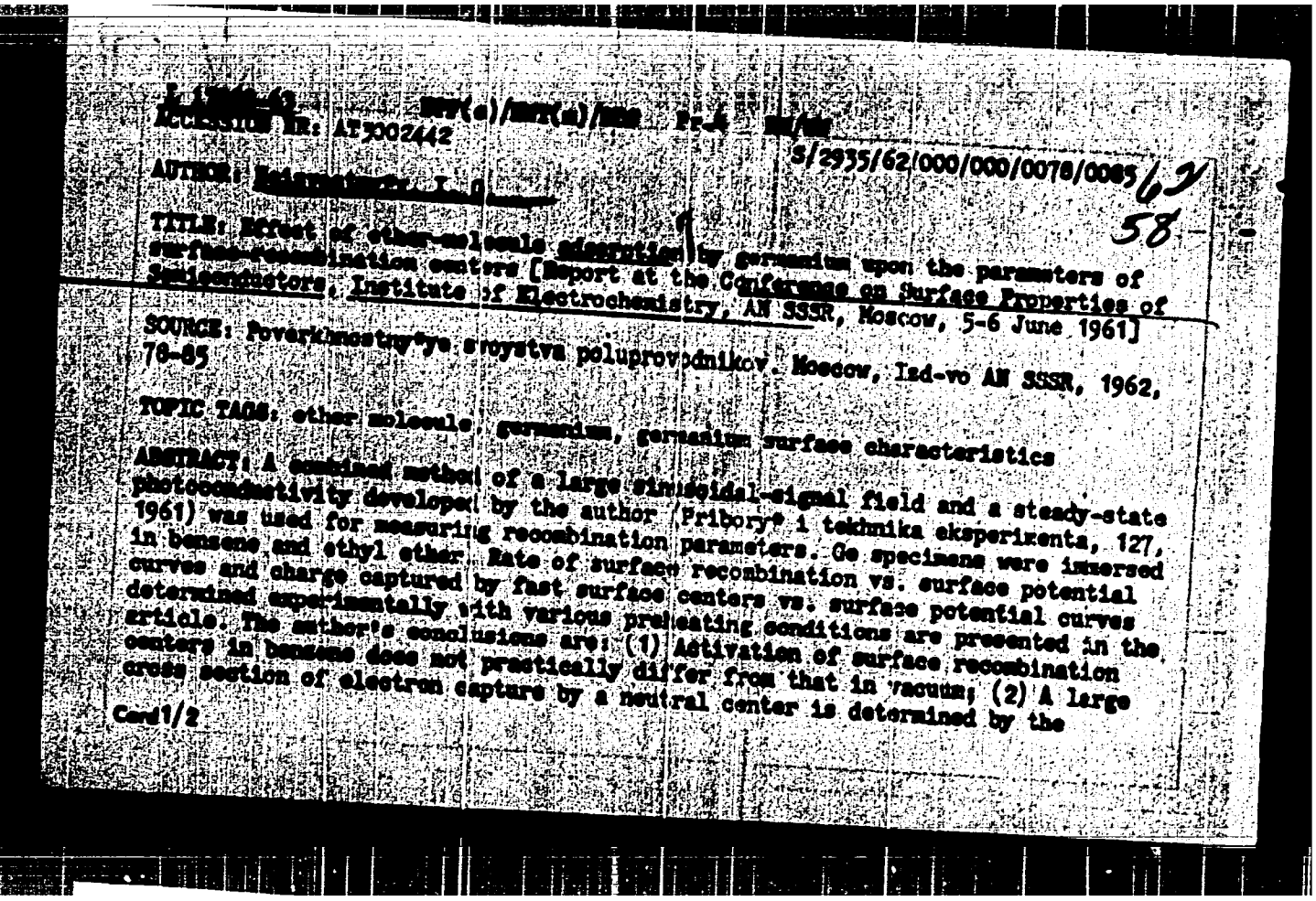
Apparatus for investigating ....

641; Ref. 4 - F.J. Morin, J.P. Maita - Phys. Rev. 1954, 94, 1525.

ASSOCIATION: Fizicheskiy institut AN SSSR
(Physics Institute of the AS USSR)

SUBMITTED: August 3 1960

Card 6/6



ACCESSION NR: AT3002442 S/2935/62/000/000/0078/0085

AUTHOR: [illegible]

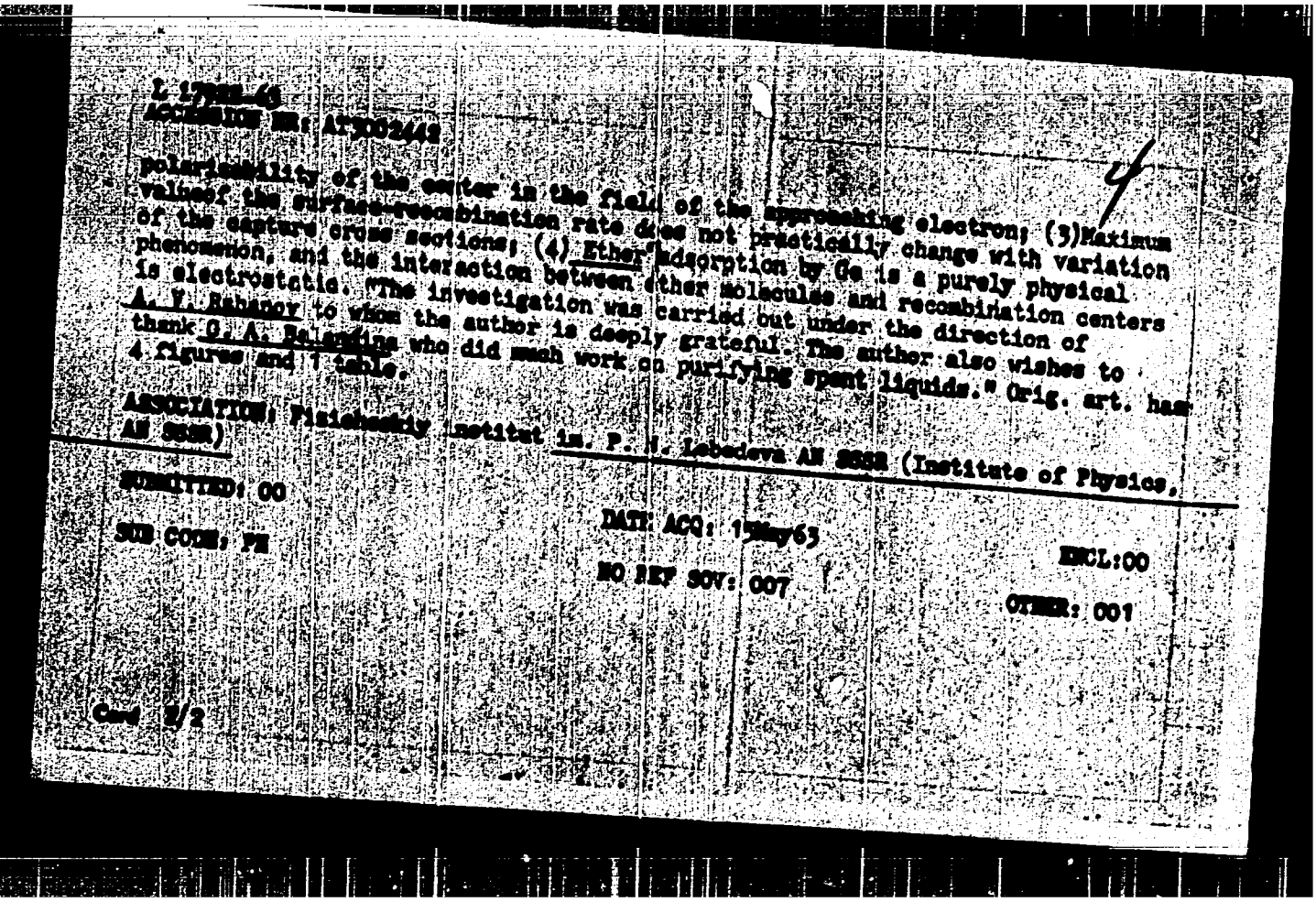
TITLE: Effect of other molecule dissociation by germanium upon the parameters of surface recombination centers [Report at the Conference on Surface Properties of Semiconductors, Institute of Electrochemistry, AN SSSR, Moscow, 5-6 June 1961]

SOURCE: Poverkhnostnyye svoystva poluprovodnikov. Moscow, Izd-vo AN SSSR, 1962, 78-85

TOPIC TAGS: other molecule, germanium, germanium surface characteristics

ABSTRACT: A combined method of a large sinusoidal-signal field and a steady-state photoconductivity developed by the author (Pribory i tekhnika eksperimenta, 127, 1961) was used for measuring recombination parameters. Ge specimens were immersed in benzene and ethyl ether. Rate of surface recombination vs. surface potential curves and charge captured by fast surface centers vs. surface potential curves determined experimentally with various preheating conditions are presented in the article. The author's conclusions are: (1) Activation of surface recombination centers in benzene does not practically differ from that in vacuum; (2) A large cross section of electron capture by a neutral center is determined by the

Card 1/2



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ACCESSION NR: AT5002442

polarizability of the center in the field of the approaching electron; (3) Maximum values of the surface-recombination rate does not practically change with variation of the capture cross sections; (4) Ether adsorption by Ge is a purely physical phenomenon, and the interaction between ether molecules and recombination centers is electrostatic. "The investigation was carried out under the direction of A. V. Rakhnov to whom the author is deeply grateful. The author also wishes to thank G. A. Belyanina who did much work on purifying spent liquids." Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Institute of Physics, AN SSSR)

SUBMITTED: 00 DATE ACQ: 15May65 ENCL:00

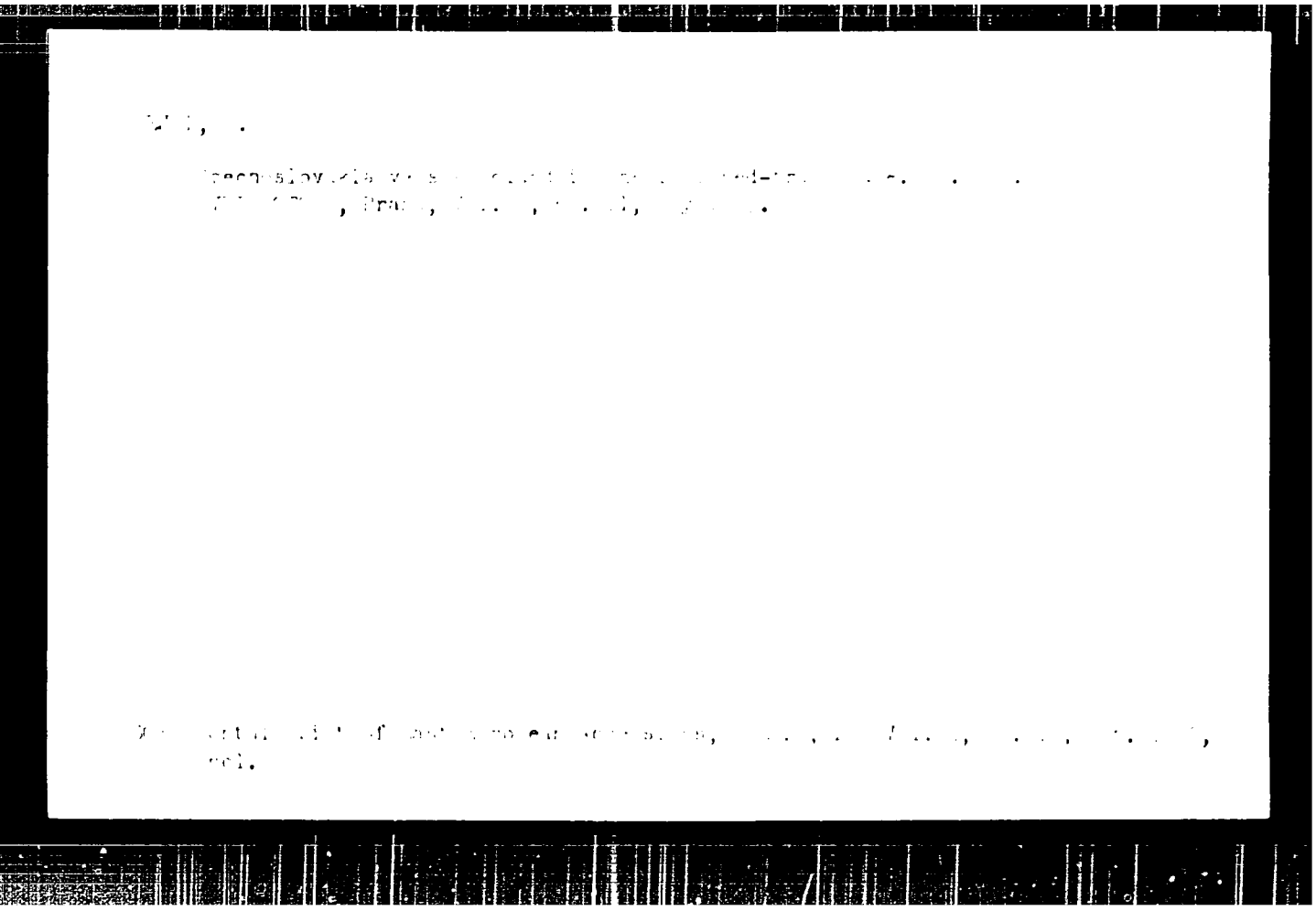
SUB CODE: PH NO REF SOV: 007 OTHER: 001

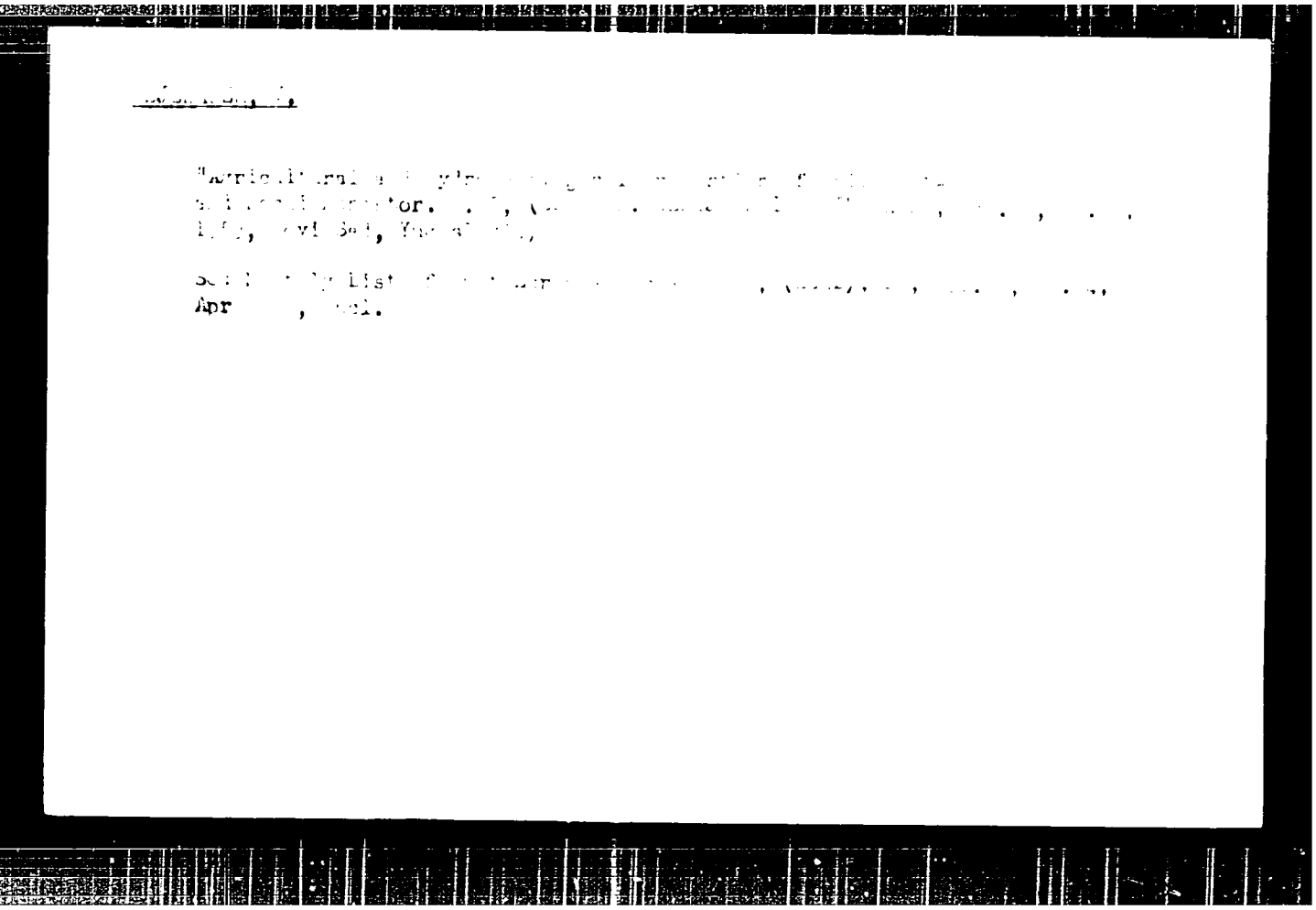
Card 2/2

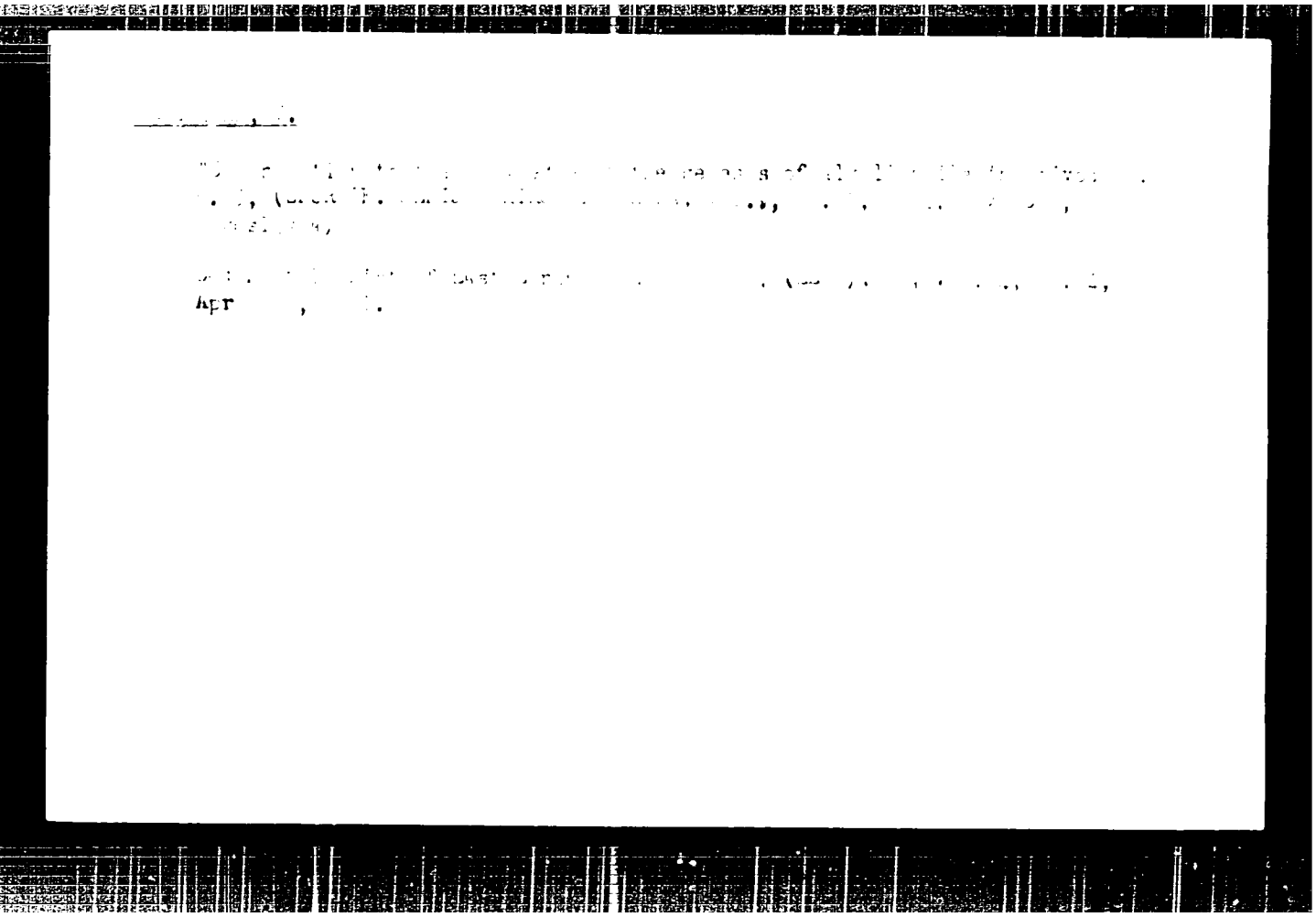
N.ZJI, ..

"New travel literature for motorists." p. 19 (Svet Motoru, Vol. , No. 16?, Ma. 19..,
Praha)

SO: Monthly list of East European accessions, Library of Congress, Vol. 3, No. 6, June. 1954, ncl.







Apr

NEJEDLA, H.; KRIZOVA, M.

"Initiative of Agricultural Laborers and Nationalizers in the USSR", p. 746, (ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 4, No. 7/8, July Aug. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL, LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ELEFANT, E.; NEJEDLA, Z.; VONDRAKOVA, I.

Organisation of wards for newborn; care of premature. Pediat. listy 6 no.3:182-184. May-June 1951. (CIML 20:11)

1. Of the Institute of Care for Mother and Child in Prague-Podole (Director -- Prof. J. Trapl), Head of the Pediatric Division Docent K. Kubat, M.D.

HEJDLA, Zdenka

Calmettization of premature infants. Lek. obzor 3 no.11:672-673 1954.

1. Z Ustavu pro peci o matku a dite, Praha-Podoli.
(BCG VACCINATION
premature inf.)

EXCERPTA MEDICA Soc.7 Vol.10/4 Pediatrics Apr1156

884. NEJEDLA Zd. and ZEMAN L. Z. Ust. pro péči o matku a dítě, Praha. *Inokulace BCG kmene při injekční léčbě penicilinem. Inoculation of BCG vaccine during penicillin injection therapy ČSL. PEDIAT. 1955, 10/5 (380-384) Graphs 1 Illus. 2

Following i.m. injection into the thigh of an unknown quantity of BCG vaccine, mixed with, or in place of, therapeutic penicillin, a 14-day-old newborn infant developed an illness, the course of which resembled extravisceral tuberculous primary infection. The course of the illness was benign, and characterized by early and marked calcification at the injection site and in inguinal and mesenteric lymph nodes.

Nejedlá - Prague (VII, 15*)

NEJEDLA, Z.

Experiences with the calmettisation of children with M-vaccine.
Rev. Czech. M. 2 no.3:220-227 1956.

1. Institute for the Care of Mother and Child, Prague, Director: Prof. J. Trapl; Head of Paediatric Research: Doc. K. Kubat.
(TUBERCULOSIS, in inf. & child
prev., M. tuberc. murinus vacc., comparison with BCG vacc.)
(MYCOBACTERIUM TUBERCULOSIS,
murinus vacc. in prev. of tuberc., comparison with BCG vacc. in child.)
(BCG VACCINATION, in inf. & child
comparison with M. tuberc. murinus vacc.)
(VACCINES AND VACCINATIONS
M. tuberc. murinus vacc. in prev. of tuberc., comparison with BCG vacc.)

NE 3 L DAH, 2

ZEMAN, L.; NEJEDLA, Z.; LODINOVA, R.

Use of ACTH & cortisone for infants. Cesk. pediat. 12 no. 12:1084-1089
5 Dec 57.

1. Ustav pro peci o matku a dite v Praze, reditel prof. J. Trapl
vedouci pediatrickeho sektoru prof. K. Kubat.
(ACTH, ther. use
pediatric dis. (Cz))
(CORTISONE, ther. use
pediatric dis. (Cz))
(PEDIATRIC DISEASES, ther.
ACTH & cortisone (Cz))

NEJEDLA, Z.; HROMADKOVA, I.

Osmotic resistance of the leukocytes in staphylococcal infections. Cesk. pediat. 14 no.8:715-720 Aug 59.

1. Ustav pro peci o matku a dite v Praze-Podoli, reditel prof. MUDr. J. Traul, ved pediatr. useku prim. MUDr. K. Polacek.
(STAPHYLOCOCCAL INFECTIONS, blood) (LEUKOCYTES)

NEJEDLA, Z.; GALLIOVA, J.

A comment on the technic of vaccination against tuberculosis.
Cesk.pediat.16 no.1:54-57 Ja '61.

1. Ustav pro peci o matku a dite v Praze-Podoli, reditel doc. dr. M. Vojta; Vyskumny ustav tuberkulosy v Praze 12, reditel doc. dr. R. Krivinka.
(BCG VACCINATION)

LODINOVA, R.; MECIR, M.; NEJEDLA, Z.

Influence of the repeated administration of lipopolysaccharides of Salmonella typhi murium on some indicators of immunity in infants in their first year. Rev. czech. med. 9 no.1:10-17 '63.

1. Institute for the Care of Mother and Child, Prague-Podoli. Director: Doc. M. Vojta, M.D. Head of the Paediatric Department: Doc. K. Polacek, M.D.

(LIPOPOLYSACCHARIDES) (SALMONELLA TYPHIMURIUM)
(ENDOTOXINS) (IMMUNITY) (COMPLEMENT) (LEUKOCYTE COUNT)
(PROPERDIN) (ESCHERICHIA COLI) (ANTIBODIES)
(IMMUNIZATION) (BODY TEMPERATURE) (FECES)

NEJEDLA, Z.; HROMADKOVA, L.

Antibody level against endogenous strains of E. coli from birth to 1 year of age. Cesk. pediat. 18 no.7:613-619 Jl '63.

1. Ustav pro peci o matku a dite v Praze, reditel doc. dr. M. Vojta, vedouci pediatrickeho useku doc. dr. K. Polacek, CSc.

(ESCHERICHIA COLI) (ANTIBODY FORMATION)
(MATERNAL-FETAL EXCHANGE)
(HEMAGGLUTINATION)

NEJEDLA, Z.

Gamma globulins. Cesk. pediat. 18 no.8:728-733 Ag '63.

1. Ustav pro peci o matku a dite v Praze, reditel doc. dr. M. Vojta, vedouci pediatrickeho useku doc. dr. K. Polacek, CSc.

(GAMMA GLOBULIN) (AGAMMAGLOBULINEMIA)

LODINOVA,R.; MECIR,M.; NEJEDLA,Z.; JOUJA,V.

Effect of repeated administration of lipopolysaccharides on various factors of immunity in infants. Cas.lek.cesk. 103 no.10:249-255 6 Mr'64.

1. Ustav pro peci o matku a dite v Praze-Podoli; vedouci pediatrickeho vyzkumu doc.dr. K.Polacek, CSc.

NEJ[illegible] , .

Infection in newborn infants. Cesk. pediat. 19 no.9:808-813 S '64.

1. Ustav pro peci o matku a [illegible] Praze (reditel doc. dr. M. Volta; vedouci pediatrick[illegible] [illegible]emu doc. dr. K. [illegible]olacek, [illegible]Sc.).

NEJEDLA, Z.; HROMADKOVA, L.

Development of antibodies against autogenic nonpathogenic E. coli after repeated administration of vaccine prepared from the same material. Cesk. pediat. 20 no.1:30-36 Ja '65

1. Ustav pro peci o matku a dite v Praze (zatimni reditel - doc. dr. J. Horsky a vedouci pediatrickeho vyzkumu - doc. dr. K. Polacek, CSc.).

L 34045-66
ACC NR: AP6025482 SOURCE CODE: CZ/0037/66/000/001/0060/0062

52
B

AUTHOR: Hojdly, Zdenek

ORG: A. S. Popov Research Institute for Communications Engineering, Prague (Vyzkumny ustav pro sdelovaci techniku A. S. Popova)

TITLE: Condition of a loss-free medium 21

SOURCE: Ceskoslovensky casopis pro fysiku, no. 1, 1966, 60-62

TOPIC TAGS: anisotropic medium, electromagnetism, coordinate system

ABSTRACT: The article presents a derivation of the relation between individual components of the tensor μ in a non-orthogonal system of coordinates which follows from the condition that the medium under consideration be loss-free. Orig. art. has: 9 formulas. [JPRS: 35,386]

SUB CODE: 20, 12 / SUBM DATE: 13Jul64 / SOV REF: 001 / OTH REF: 001

Card 1/1

0976 0859

L 37179-66 EWT(m)/T IJP

ACC NR: AP6027870 SOURCE CODE: CZ/0038/66/000/003/0099/0099

AUTHOR: Nejedly, Zdenek--Neyedly, Z.; Filip, Jiri--Filip, Y.; Ekl, Jindrich--Ekl, Y.

ORG: Institute for Investigation, Production and Use of Radioisotopes, Prague (Ustav pro vyzkum, vyrobu a vyuziti radioizotopu)

TITLE: Investigation of the tagging of organic compounds with radioisotopes. Preparation of adenine, guanine, uracil and cytosine tagged with C-14 (U)

SOURCE: Jaderna energie, no. 3, 1966, 99

TOPIC TAGS: radioisotope, radiation chemistry, chemical synthesis

ABSTRACT: UVVVR Report No. 42/1964. The named compounds were prepared by the acid hydrolysis of riboside-5'-monophospha[illegible]r ribosides tagged with C-14, under such conditions that ribose-C-14(U) also [illegible]d be obtained. The radiochemical purity of the obtained compounds was 98%. The [illegible]ducts are of importance as intermediates for the synthesis of C-14 desoxyribos[illegible] which will be prepared. [JPRS 36,845]

SUB CODE: 07 / SUBM DATE: none

Card 1/1

UDC: 547.02

0977 1385

NEJEDLO, V., VENDR, A.

Fine turning of small holes by sintered carbides. p. 147.

STROJIRENSKA VYROBA, Praha, Czechoslovakia, Vol. 7, no. 3, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7, July 1959

uncla.

156000 2908

21389
Z/031/61/009/006/001/002
D007/D102

AUTHOR: Nejedlo, V.

TITLE: Machining of high-temperature and heat-resistant alloys and highly alloyed steels

PERIODICAL: Strojírenská výroba. v. 9, no. 6, 1961, 288-291

TEXT: The article lists some results obtained in the ČSSR with the use of high-temperature and heat-resistant alloys and highly alloyed steels, especially in regard to their machinability, suitability as cutting tool materials, and angular configuration. The chemical composition of Czech and Soviet high-temperature and heat-resistant steels is shown in the following table:

	Poldi AKRN	El 612	Poldi AKND
C	0.12	0.12	0.08
Cr	15.0	15.0	20.0
Ni	36.0	35.0	58.0
Mo	-	-	-
Co	-	-	16.0

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Machining of high-temperature...

	Poldi AKRN	El 612	Poldi AKND
Mn	1.5	-	-
Si	0.3	-	-
W	3.0	3.0	-
Ti	1.5	1.3	2.3
Cd	-	-	-
Al	-	-	1.3

The criteria for the division of the metals into individual machinability groups are stated in the instructions MTS-N-A 43 and MTS-N-RP 4, issued by the MTS (1955, 1956). According to these criteria, highly alloyed austenitic Cr-Ni-Mo-(Co) steels fall within machinability groups 6b thru 8b; high-temperature Ni alloys fall within groups 4b thru 7b, depending on their chemical composition and heat treatment; Co alloys fall within groups 3 thru 6b, primarily depending on whether parts are formed or cast. Regarding the material for cutting tools, sintered carbides of the S-series are suitable for machining high-temperature and heat resistant steels. Under normal conditions, S 1 or S 2 sintered carbide is suitable for finishing,

and S 3 or S 4 sintered carbide for roughing. The H 1 sintered carbide type was found to be most suitable for machining Ni and Co alloys with very low Fe content. Where sintered carbide cannot be used, Poldi Maximum Special 30 (ČSN 19 854) and Poldi Maximum Special 55 (ČSN 19 855) high-speed Co-steels should be used. Tools for machining highly-alloyed, high-temperature and heat-resistant steels and Ni alloys should have face angles $\gamma = 10 - 15^{\circ}$ when made of high-speed steel, and $\gamma = 5 - 10^{\circ}$ when made of sintered carbide; for machining cast parts, face angles should be $6 - 10^{\circ}$ for high-speed-steel tools, and $2 - 5^{\circ}$ for sintered carbide tools. Recommended back angles are: $\alpha = 7 - 10^{\circ}$ for high-speed-steel tools and $\alpha = 6 - 8^{\circ}$ for sintered carbide tools. For cutting Co alloys, tools must have stronger cutting edges and, therefore, smaller face and back angles ($\gamma = 0 - 6^{\circ}$; $\alpha = 5 - 6^{\circ}$). A cutting speed of 12 - 40 m/min is recommended for Ni-alloys, e. g., the US Nimonic 80, the Czech Poldi AKNC, and the Soviet El 437. To achieve economical machining results, the following conditions must be maintained: Maximum rigidity of the machine- tool - workpiece system, continuous tool infeed; and not more than half of the conventional permissible

value of cutting-edge blunting, which should not exceed 0.25 - 0.40 mm. There is one table.

ASSOCIATION: Výzkumný ústav obrábécích strojů a obrábění, Praha (Research Institute of Machine Tools and Machining, Prague).

Card 4/4

ČERNÝ, Erwin, MUDr; CHYTIL, Svat., MUDr; HEJHEDLO, V., MUDr; VLČKOVA, Z., MUDr

Hearing gains following atticoantrotomy. Cesk. otolar. 3 no.3:128-137 Aug 54.

1. Zotolaryngologicke kliniky VLA v Hradci Kralove
(HEARING DISORDERS, surgery
attikoantrotomy, evaluation of results)

NEJEDLO, Veroslav, MUDr.

Treatment of acute inflammation of sinuses by hot baths applied to the arms. Cesk. otolar. 7 no.1:46-51 Feb 58.

1. Otolaryngologicka klinika VLA JEvP v Hradci Kralove.
(SINUSITIS, ther.
hot baths of arms (Cz))
(HYDROTHERAPY, in var. dis.
sinusitis, hot baths of arms (Cz))

NEJEDLO, Veroslav; NOVAK, Jan; KORHON, Miloslav

Results of surgical therapy of laryngeal carcinoma and the influencing factors. Cesk. otolar. 7 no.6:368-376 Dec 58.

1. ORL klinika KU , Hradec Kralove, prednosta prof. MUDr. Jan Hybase. Patologicko-anatomicky ustav KU, Hradec Kralove, prednosta prof. MUDr. Antonin Fingerland. V.N., ORL klinika KU, Hradec Kralove.
(LARYNX, neoplasms,
surg., postop. results & influencing factors (Cz))

NEJEDLO, V.

Possibility of a conservative repair of mesotympanic perforation of the drum. Cesk. otolar. 8 no.4:222-228 Aug 59.

1. Klinika nemoci usnich, nosnich a krcnich lek. fak. KU v Hradci Kralove, prednosta prof. MUDr. Jan Hybasek
(EAR, MIDDLE, dis.)

NEJEDLO, Veroslav

Long-term functional and anatomical results of endomeatal myringoplasty. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 4 no.1:61-68 '61.

1. Katedra otorinolaryngologie; prednosta prof. Dr. Sc. MUDr. J. Hybasek.

(TYMPANIC MEMBRANE surgery)
(SKIN TRANSPLANTATION)
(DEAFNESS surgery)

NEJEDLO, Veroslav

Conservative therapy of mesotympanic perforations of the eardrum. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad Kral) (Suppl) 4 no.5:435-468 '61.

1. Otorinolaryngologicka klinika; prednosta prof. DrSc. MUDr. J. Hybasek.
(EAR MIDDLE) (WOUNDS AND INJURIES)

NEJEDLO, Veroslav

Simple endomeatal myringoplasty. Cesk. otolaryng. 11 no.3:166-173 '62.

1. Otolaryngologicka klinika lekarske fakulty University Karlovy v Hradci Kralove, prednosta prof. dr. J. Hybasek, DrSc.

(TYMPANIC MEMBRANE surgery)

NEJEDLO, Veroslav

Myringoplasty with cooled skin autotransplants. Sborn.ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.) 6 no.3:Supplement:385-389 '63.

1. Otolaryngologicka klinika; prednosta doc. MUDr. L.Faltynek, CSc.

NEJEDLO,V.

Fresh and preserved skin grafts for myringoplasty. Cesk. otolaryng. 12 no.6:379-381 D'63.

1. Otolaryngologicka klinika lekarske fakulty KU v Hradci Kralove; prednosta: doc.dr.L.Faltynek, CSc.

NEJEDLÝ, V.

Our experiences with plastic ENT surgery. Cesk. otolaryng. 14 no.2:98-103 Ap'65.

1. Otolaryngologicka klinika lekarske fakulty Karlovy Univerzity v Hradci Kralove (prednosta doc. dr. L. Faltynek, CSc.).

NEJEDLO, V.

Plastic resection of the nasal septum and functionally esthetic nasal operations. Cesk. otolaryng. 14 no.2:108-112 Ap'65.

1. Otorinolaryngologicka klinika lekarske fakulty Karlovy University v Hradci Kralove (predn.stav doc. dr. L. Faltynek, CSc.).

NEJEDLY, A.

Effect of flow on the natural purification of streams. p.92. (Vodni Hospodarstvi. Praha. No. 4, Aprl. 1957.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

NEJEDLY, A.

Determining the magnitude of water infiltration and leakage into sewers. p. 50.
(Voda, Vol. 36, No. [illegible], Feb 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sep 1957, Inc.

NEJEDLY A

NEYEDLY, A. [Nejedly, A.], inzh.; PEL'TS, I. [Pelc, I.]

Influence of current on the kinetics of self-purification. Gig. i san. 23 no.11:59-67 N '58 (MIRA 12:8)

1. Iz Vodokhozyaystvennogo nauchno-issledovatel'skogo instituta (Praga-Podbaba, Chekhoslovakiya)
(WATER--PURIFICATION)

NEJEDLY, A., inz.

Production of detergents removable by biological treatment in the German Federal Republic. Vodni hosp 14 no. 1:14 '64.

NEJEDLY, Bedrich; KRISTAL, Antonin; PADEVET, Miroslav

New urine test. Cas. lek. cesk. 97 no.22:689-691 30 May 58.

1. Ustredni laborator OUNZ v Kladne, prednosta MUDr. Bedrich Nejedly.
B. N., Kladno, OUNZ.
(URINE
urinalysis, new technic (Cz))

NEJEDLY, E.; GOTTWEI[illegible], J.

"Plasticizers for polyvinyl chloride; properties of linear tetraesters."

p. 438 (Chemicky Prumysl) Vol. 7, no. 8, Aug. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

CZECHOSLOVAKIA/Chemical Technology - Synthetic Polymers. Plastics. H-29

Abs Jour : Ref Zhur - Khimiya, No 24, 1958, 83485

Author : Majer, J., Nejedly, E.
Inst : -
Title : The Viscous-Elastic Properties of Polyvinyl Chloride Which has been Plasticized With Dibutylphthalate, Dioctylphthalate and Dioctyladapinate.

Orig Pub : Chem. prumysl, 1958, 8, No 1, 41-44.

Abstract : Results are cited for a study on the thermo-mechanical properties of polyvinyl chloride plasticizers by the application of the creep curve according to Tobol'sky (R.Zh. Khim., 1956, 54650).

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NEJEDLY, EMIL.

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1

Distr: [illegible]

[redacted]

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

83843

Z/009/60/000/010/002/003
E112/E353

11.2230

AUTHOR: Nejedlý, Emil

TITLE: Effect of Compound Plasticisers on Properties of Polyvinylchloride

PERIODICAL: Chemický průmysl, 1960, No. 10, pp. 545 - 549

TEXT: The work reported herein is an investigation of the problem as to whether it is possible to predict the properties of plasticised polyvinyl chloride from the properties of the individual plastisizer used simultaneously or whether it is possible to choose a mixture of plasticizers in order to produce specified properties of the polymer. The problem was studied in detail by Wartman (Modern Plastics, 32, 139, 1955) who has shown that the properties of mixed plasticiser compounds are related in a simple manner to the concentration of the individual plasticisers and to the value of each of these same properties in compounds containing the individual plasticisers His method for predicting the properties was shown experimentally to be applicable to brittle temperature, SPI-volatility, plasticiser rub-off and nitrocellulose marring. Wartman used a graphical representation of compound properties and it is the

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Effect of Compound Plasticisers on Properties of Polyvinyl-chloride

object of the present paper to extend Wartman's work to the prediction of the effects of compound plasticisers on I: solvating effect; II: tensile strength and extensibility. III: resistance to low temperatures: IV: volatility and V: water absorption and weight-loss by water extraction. Methods for determining above physical data are described, solvating effect of the compound plasticizers was established by measuring the temperature RT of solution of polymer in the plasticizer. A 1% suspension of the polymer in the plasticizer is heated with constant stirring until the suspension becomes clear. The value of RT is a measure of the stability of the system: plasticizer-polymer. Tensile strength and extensibility were determined by means of the tensile testing machine of VEB-Werkstoffprüfmaschinen, Leipzig. Resistance at low temperatures was tested according to ASTM D 746-44 T. Volatility was deter mined by the activated charcoal procedure. (Draft Proposal ISO/TC.61/W.G. 6/104. The greater part of the present paper is

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devoted to the study of solution temperatures of compound plasticizers. It is shown to be an additive property of the individual plasticisers and to show linearity when plotted against plasticiser content. This relationship can be also expressed by equation:

$$RT_s = a\,RT_A + b\,RT_B \qquad (1)$$

where RT_s - temperature of solution of plasticiser mixture.

RT_A, RT_B - temperature of solution of plasticisers A and B.

a, b - fractional parts of plasticisers A and B in mixture.

The above equation can be also used to compute temperatures of solution of multicomponent systems. However, the author suggests using a graphical representation. Thus, for a three-component plasticiser system the use of a triangular coordinate

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Effect of Compound Plasticisers on Properties of Polyvinyl-chloride

graph is recommended. Similarly to the method adopted by Wartman a linear relationship was also confirmed for plasticiser-composition and tensile strength and resistance to low temperatures, respectively. Volatility and water-absorption have also been shown to be additive properties. The author has computed the composition of a three-component plasticiser mixture for a polymer which was to have certain specified properties. 1) minimum tensile strength 200 kg/cm^2, 2) resistance to low temperatures in a temperature range below -27 °C, 3) volatility not to exceed 6%, 4) water-absorption approx. 10%, 5) temperature of solution RT not to exceed 105 °C. Computed and practically measured values are tabulated showing very good agreement.

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Effect of Compound Plasticisers on Properties of Polyvinyl-chloride

There are 7 figures, 2 tables and 6 references: 5 English and 1 Soviet.

ASSOCIATION: Výzkumný ústav makromolekulární chemie. Brno (Research Institute for Macromolecular Chemistry, Brno)

SUBMITTED: February 16, 1960

Card 5/5

20957
G/004/61/008/003/003/006
B120/B206

158220 2209

AUTHORS: Nejedly, E., and Gottweis, J.

TITLE: Plasticizers for polyvinyl chloride. Properties of linear tetraesters

PERIODICAL: Plaste und Kautschuk, v. 8, no. 3, 1961, 125 - 127

TEXT: Linear saturated tetraesters were studied with a view to their suitability as plasticizers for PVC. The tetraesters were prepared according to Eq. (5):

$$2\ ROCCH_2Cl + NaOCR'CONa \longrightarrow ROCCH_2OCR'COCH_2COR + 2\ NaCl$$

at 100 to 120°C in the presence of tri(n-butyl) amine as catalyst. The reaction mixture was rinsed with water after the esterification reaction, and the tetraesters were distilled at a pressure of from 1 to 2 mm Hg. The following investigations were made concerning the suitability as plasticizers (see Tables 1 and 2): for evaluating the compatibility of the plasticizer with the polymers, the temperature, at which some granules of PVC dissolve clearly in the specific tetraester (column 1), was deter-

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mined under the microscope by means of Kofler's heating block. Foils with a content of 33% by weight of plasticizer were observed for a year to find out whether an exudation of the plasticizer took place (column 2). The volatility was evaluated by determining the boiling point at 4 mm Hg (column 3). The plasticizing effect was evaluated by determining the tensile force in kg per cm^2 of initial section, which was necessary for a 100% elongation of the specimen (0.5x20x125 mm). This was done on a strength tester of the VEB Werkstoffprüfmaschinen, Leipzig (State-owned Plant for Test Machines, Leipzig) (column 4). Resistance to cold was determined according to ASTM D 746-44T (column 5). Tests were conducted with 0.5 mm thick foils from two parts by weight of PCU-G and one part by weight of plasticizer, which were produced on a two-roller calander at 150 - 155°C and a rolling time of 10 min. From the tables it may be seen that the plasticizing properties of the tetraesters I-III and VII-IX, respectively, improve with increasing length of R and R' (see Eq. (5)). However, after reaching optimum values, they deteriorate again with increasing chain length: V, X. Cyclic R and R' did not produce good properties: VI, XI. With its properties, IV steps out of the homologous series of tetraesters, since amyl alcohol of fermentation was used for its synthesis and the

Plasticizers for polyvinyl ...

branched amyl groups had a detrimental effect on the properties. The low solution temperature of VII is explained by the low thermal stability of this tetraester which decomposes when the solution temperature is determined. The following tetraester shows therefore the best plasticizing effect for PVC:

$$CH_3(CH_2)_3OC(CH_2)_4OC(CH_2)_4CO(CH_2)_4CO(CH_2)_3CH_3.$$

The four ester groups cause good affinity to the polar PVC, the active centers of which are blocked in this way. The interposed paraffin chains warrant good mobility of the molecule. The original article was published in the periodical Chemický průmysl (Prague), v. 7 (32) (1957), no. 8, 438-442. There are 2 tables and 9 references: 1 Soviet-bloc and 8 non-Soviet-bloc. The 2 references to English language publications read as follows: Reed, M.C., and Hardin, J., Ind. Engng. Chem. v. 41 (1949) 675; Lawrence, R.R., and McIntyre, E.B., Ind. Engng. Chem. v. 41 (1949) 689.

ASSOCIATION: Research Institute of Macromolecular Chemistry, Brno, Czechoslovakia

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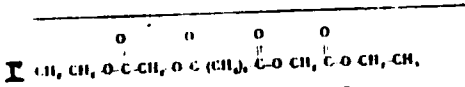
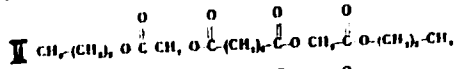
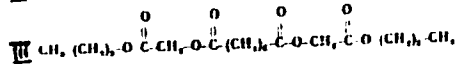
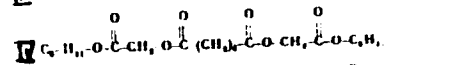
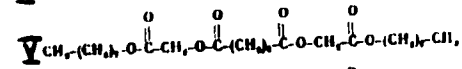
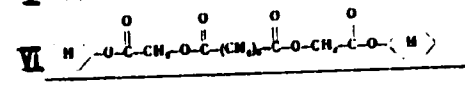
20957

G/004/61/008/003/003/006
B120/B206

Plasticizers for polyvinyl ...

table 1

Tetraester	1 Lösungstemperatur [°C]	2 Aussehen des Weichmachers	3 Siedepunkt bei 4 Torr [°C]	4 Relativmodul bei 100% Dehnung [kp/cm²]	5 Kältebeständigkeit [°C]	6 Molekulargewicht
I 	169	nach 3 h	195 200	91	-26	318
II 	126		205 210	61	-33	346
III 	118	-	212 220	57	-36	371
IV 	118	-	234 237	64	-29	402
V 	120	-	260	58	-36	406
VI 	97	-	255 260	100	-18	436

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B120/B206

Plasticizers for polyvinyl ...

table 2

Testmuster	1 Lösungstemperatur [°C]	2 Ausscheidung des Weichmachers	3 Siedepunkt bei 4 Torr [°C]	4 Belastungsmodul bei 100% Dehnung kp/mm²	5 Kältebeständigkeit [°C]	6 Molekulargewicht
VII	114	nach 24 h	187—190	84	26	318
VIII	125	nach 48 h	210—212	70	—31	346
IX	118	schwitzt nicht aus	215—220	57	—36	374
X	117	"	230	65	—36	430
XI	120	"	230—233	113	—10	394

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Plasticizers for polyvinyl ...

Legend to Tables:
1) Solution temperature, 2) exudation of plasticizer, 3) boiling point at 4 mm Hg, 4) load factor with 100% elongation, 5) resistance to cold, 6) molecular weight, 7) after 7, 24, and 48 hr, respectively, 8) does not exude.

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NEJEDLY, J.

Servicing the MA-60 threshing machine. p.271

(Ministerstvo zemedelstvi) Praha. Publication on mechanization of agriculture issued by the Ministry of Agriculture. Semi-monthly

Vol. 5, no. 14, July 1955

SOURCE: East European Accessions List (EAL) Library of Congress
Vol. 5, No. 1, January 1956

C.A. NEJEDLY, Josef

The rapid determination of sulfur in steel by the planochromatic method of Glasunov and Jirkovsky. Jan Korecký and Josef Nejedlý. *Hutnické Listy* 5, [illegible]. Glasunov and Jirkovsky (*C. A.* 48, 2548b) have described a rapid method for detg S in steel. An unknown wt. but known surface of the sample is exposed for a definite time to the action of HCl. The escaping gases are passed into a tube contg a dil. acetic soln. of dimethyl-*p*-phenylenediammo chloride. After adding a little $FeCl_3$ the color is measured. The method was tried and more time was required for the evolution of H_2S than was stated in the original paper. The evolution of H_2S is very irregular if cast ings of the specimen are used. For these and other reasons, the conclusion is reached that the planochromatic method of G. and J. takes more time than the combustion procedure [illegible] dure.

Z/034/63/000/001/008/012
E073/E15F

AUTHORS: Mandl, M., and Nejedlý, J.

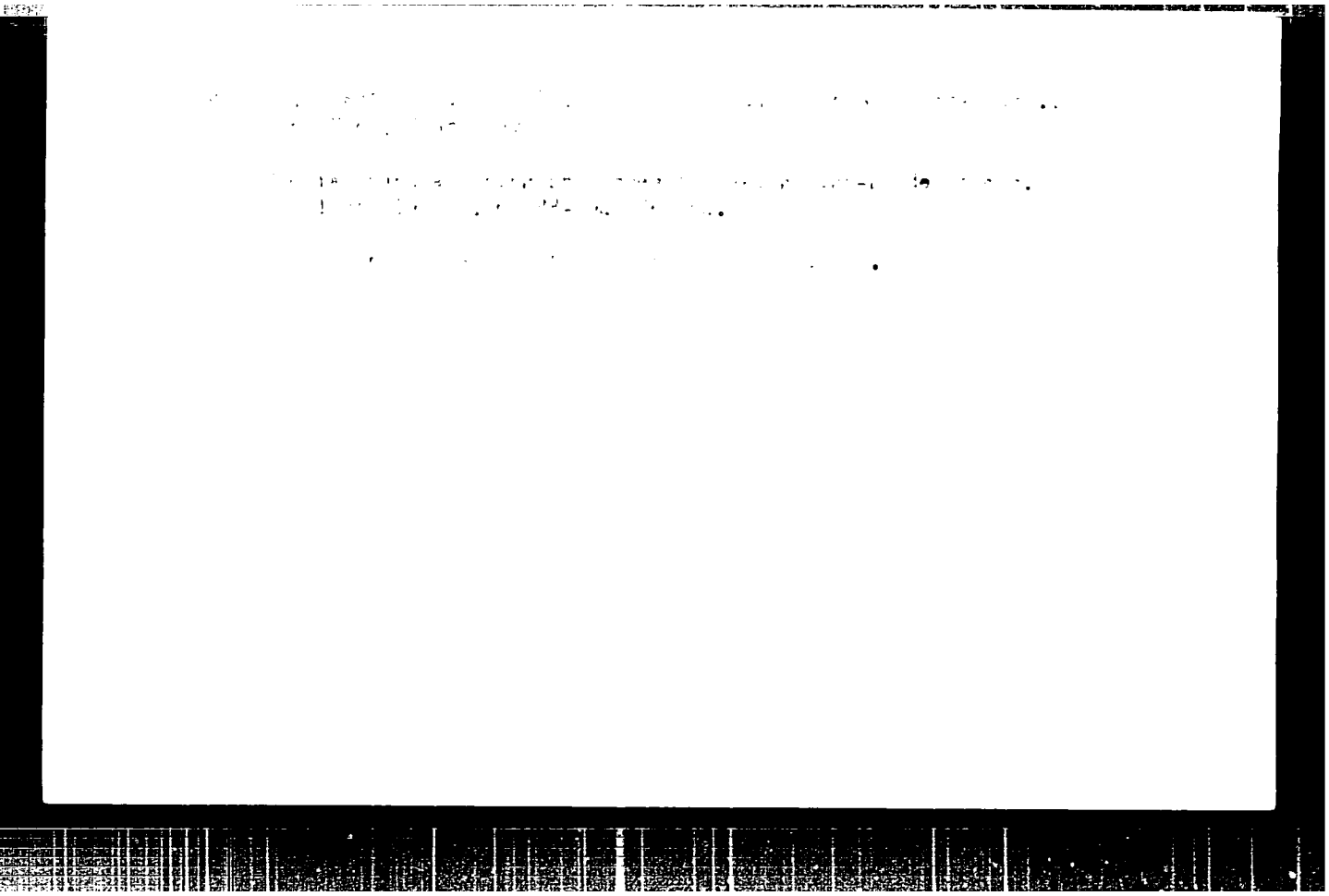
TITLE: Investigation of the conditions for manufacturing steel of the highest purity (concluding report)

PERIODICAL: Hutnické listy, no.1, 1963, 74

TEXT: Following earlier investigations of "complex" deoxidation of steel in laboratory tests, the authors verified under full-scale conditions the correctness of the optimum chemical composition found for the complex deoxidant alloys containing Ca, Mn, Si, Al and Mg, by determining the best method of final deoxidation of the steel ČSN 15230 to ensure a high degree of purity of the steel. The results of the full scale tests were used to evolve a recommended production method for steel ČSN 15230 by the duplex process. The report also contains results of full-scale tests carried out to determine the influence of complex deoxidation with alloys of FeCaSi and FeCaMgSi on the purity of the special steel T 0.8.

[Abstractor's note: Complete translation.]

Card 1/1



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

NEJEDLY, Karel; STRAUB, Robert

Spontaneous spindle cell sarcoma in guinea pigs. Neoplasma, Bratisl. 4 no.4:402-404 1957.

1. Staatliches Institut fur Heilmittelkontrolle, Praha.
(SARCOMA, pathol.
spindle cell, spontaneous of connective tissue in guinea pig)
(CONNECTIVE TISSUE, neoplasms
spindle cell sarcoma, spontaneous in guinea pig, pathol.)

NEJEDLY, K.; KOZLIK, V.

Biological evaluation of stimulants by means of the leukocyte test.
Cesk. farm. 11 no.6:315-320 Jl '62.
(LEUKOCYTE COUNT pharmacol) (DRUG THERAPY)

[illegible]

[illegible], [illegible]; [illegible], V.; [illegible] for [illegible] Control [illegible] [illegible] Kontrola Leciv), Prague.

"Evaluation of Dermal Irritation [illegible] of Drugs as [illegible] by the Electrophysiological Parameters."

Prague, [illegible], Vol [illegible], No [illegible], [illegible], pp [illegible]

[illegible] /[illegible]ors' [illegible]/: [illegible] for the evaluation of [illegible] fol- [illegible] information of [illegible] drugs was [illegible] [illegible] of [illegible] in [illegible] [illegible] w[illegible] [illegible] a[illegible] [illegible] and [illegible] of [illegible], [illegible], [illegible] [illegible]ce. ([illegible] [illegible]ved [illegible] Nov [illegible].

[illegible]/1

MEJEDLY, L.

Tasks of the machinery industry in the development of the production of building materials. p. 147.

STAVIVO. (Ministerstvo stavebnictvi) Praha, Czechoslovakia, Vol. 37, no. 5, May 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7, July 1959 uncla.

[illegible]J[illegible]D[illegible]Y, M.

The use of rectifiers, in operating exciters of large synchronous motors.

p. 22[illegible] (Elektrotechnik) Vol. 12, no. 7, July 1[illegible], Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, Vol. [illegible], No. 1, Jan. [illegible]

88254

9.2540 (1020, 1138, 1159)

Z/017/60/049/002/001/001
E073/E535

AUTHORS: Nejedlý, Miloš, Engineer and Kubát, Milan, Engineer Candidate of Technical Sciences

TITLE: Large Power Rectifiers Manufactured by ČKD Prague

PERIODICAL: Elektrotechnický obzor, 1960, Vol.49, No.2 pp 74-82

TEXT: The article is intended as an overall report of the present state of development in the fields of mercury arc rectifiers and semiconductor rectifiers. In 1959 ČKD began the manufacture of a new type of single anode, air cooled, mercury arc rectifier with continuous evacuation. The rectifier is of the excitron type, UI-303. Its design was governed by the following considerations: a) the rectifiers should have such parameters that it should be possible to utilise them universally and economically within wide ranges of power and voltages between 660 and 3300 V, b) it should be easy to disassemble the tank and to repair the rectifier on the spot; c) it should have a small floor space, simple auxiliary circuits and it should be possible to operate it automatically or by remote control; d) high reliability and efficiency. The rectifier consists of six single anode tanks, arranged in a circle on a stand with a central axial fan and a simple circuit for distribution of the cooling air. The rectifier is fitted with

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a continuously operating air cooled mercury vacuum pump, an automatic mercury seal in the high vacuum suction piping and a large pre-vacuum vessel This vessel is evacuated by means of a rotary oil pump at intervals of several weeks, thus simplifying maintenance considerably. This rectifier corresponds to the following ratings according to ČSN 351510:

660 V	2000 A	1320 kW	over-load capacity "A"
825 V	2000 A	1650 kW	" " "A"
1650 V	1250 A	2060 kW	" " "B"
3300 V	1000 A	3300 kW	" " "B"

The design of the vessel has several new features, a cross-sectional sketch is reproduced in Fig.3. The main anode is not placed in the tank but in a separate anode vessel. As a result of this, the considerable thermal losses of the anode do not heat the condensation surfaces, which control the pressure of the mercury vapours in the vessel and thus influence the operation of the rectifier. Consequently, the anode vessel can reach temperatures up to 200°C and, as a result of the high thermal gradient, the cooling intensity will be increased and therefore the dimensions of the rectifier

Large Power Rectifiers .....

can be reduced. This new anode design has simplified also the manufacture and assembly of the control and deionization grids as well as of the screens. All these are mounted as a single assembly in the only part of the cathode which can be taken apart. The mercury of the cathode is very efficiently cooled since flat steel cathodes are used which are fitted with large cooling ribs The cathode insulation is an enamel layer covering the cathode ring which is welded onto the bottom of the vessel. For intensive cooling of the vessel itself, tubes are used which pass through the vacuum space of the tank; this enables reducing considerably the tank dimensions. Prototypes of this rectifier have proved satisfactory in operation over several years. The development of sealed mercury arc rectifiers is proceeding in close cooperation with the All Union Electrotechnical Institute imeni V. I Lenin in Moscow. Two types have been developed: 1) an air cooled single anode type, designed primarily for stationary and mobile traction rectifier stations with ratings of up to 4000 kW at 3 3 kV operating with six anodes; 2) single anode water cooled type, designed primarily for operation on single-phase 50 cps locomotives and in heavy electrolytic plants. Both these rectifiers are of the

Large Power Rectifiers

ignitron type. The tank can be made without insulating the cathode which simplifies the design considerably, see sketch Fig.4. ČKD, Prague is now faced with the task of completing the development and introduction of series manufacture of sealed ignitrons for the highest ratings. Basic work on the development of germanium and silicon rectifiers was begun at the Československá akademie věd, Ústav technické fyziky (ÚTF) (Czechoslovak Academy of Sciences Institute of Technical Physics) in 1949. ČKD, Prague utilised these results and from 1958 onwards they started their own development of silicon rectifier cells and rectifiers. SVÚSE, Běchovice participated in some of the tasks involved in developing semiconductor rectifiers. There are a number of Czech patents relating to germanium and silicon rectifiers and the standard achieved in Czechoslovakia compares favourably with that achieved in other major industrial countries. The inverse voltage of Czech produced large germanium cells reaches 300 to 400 V, which ensures a two to threefold voltage reserve in the case of operating voltages between 100 and 150 V per cell. Cells are being produced for ratings of 100 and 200 A, in the field of rectifiers, units

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Large Power Rectifiers . . .

are being built with ratings between 25 and 300 kW. Silicon cells are being produced on a pilot plant scale and inverse voltages of 1000 to 1600 V were achieved for currents of 105A/cell. In 1960 the first rectifier unit of 450 V d.c., 5000 A, was put into operation for the electrolysis of chlorine. This will be adopted as a typical unit for larger rectifying equipment, 25 kA, 325 to 650 V for electrolysis of chlorine or aluminium. Silicon rectifying units are being developed for ratings up to 3000 kW, to be used in a.c. railway traction, a prototype of which is to be built in 1961 (ZVIL Locomotive). A particular feature is the technology of preparing the single crystals, which are manufactured by ČKD, Prague (25 to 30 mm dia. for germanium and 18 to 20 mm dia. for silicon). Due to the fact that Czechoslovakia does not have available the high purity silicon required for rectifiers, zonal suspension melting is applied, not only for purifying the material but also for growing the single crystal. For the time being preliminary chemical purification is entirely dispensed with. The repeated zonal refining has been automated. During this process boron is also removed (by zonal fusion in an $H_2 + H_2O$ atmosphere) High frequency heating is applied. Repeated zonal refining (about

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30 times) produces the desired purity and following that zonal fusion apparatus is again used for drawing silicon crystals of 18 to 22 mm dia. During 1961 to 1965 ČKD Prague is to increase its annual production of semiconductor cells from 14000 to 50000 approx., corresponding to an increase from a total capacity of 140 MW to about 500-700 MW rectified capacity in 1965. The cells will be used primarily in the chemical and metallurgical industries, mines electric locomotives, tramways etc. There are 13 figures, 2 tables and 23 references: 13 Czech and 10 non-Czech.

ASSOCIATION: ČKD Praha n.p. (ČKD Prague)

SUBMITTED: November 14, 1959

Card 6/8

NEMEDLY, Milos, inz.

Jaroslav [illegible]
[illegible] tech obzor [illegible]

MEJEDLY, Miroslav, dr.; SIMON, Frantisek, dr.

Deciding of labor disputes in enterprises. Prace mzda 11 no.6:291-294 Je '63.

NEJEDLY, Miroslav, dr.; POLAKOVA, Heda, promovana pravnicka

Participation of the Council of the Trade Union Movement in civil procedure. Prace mzda 12 no.9:427-431 S '64.

NEJEDLY, R.

Experiences with liquid-manure equipment

p. 424 (Mechanisace Zemedelstvi) Vol. 7, no 11, Sept. 1957 Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no 1, Jan. 1958

NEJEDLY, Vladimir, dr.

Planning building material transportation. Doprava no.4:300-303 '63.

HEJEDLY, Zdenek; SORM, F.

Telegram of the Czechoslovak Academy of Sciences expressing condolences on the death of Generalissimo Iosif Vissarionovich Stalin, President of the Council of Ministers. Chekh.biol. 2 no.1:3 Ap '53. (MLRA 7:2)

1. President Chekhoslovatskoy Akademii nauk (for Hejedly).
2. Glavnyy sekretar' Chekhoslovatskoy Akademii nauk (for Sorm).
(Stalin, Iosif, 1879-1953)

MEJDLY, Z.; SORM, F.

Telegram of condolence sent by the Czechoslovak Academy of Sciences on the occasion of the death of Generalissimo I.V.Stalin, Chairman of the Council of Ministers [in Russian and English]. Chekh.fiz.zhur. 3 no.1: 1,7 Mr '53. (MLRA 7:6)

1. President of the Czechoslovak Academy of Sciences (for Mejdly).
2. General Secretary of the Czechoslovak Akademy of Sciences (for Sorm).
(Stalin, Iosif, 1879-1953)

NEJEDLY, Zdenek, akademik

Statement at the 16th Plenary Meeting of the Czechoslovak Academy of Agricultural Sciences. Vestnik CSAZV 7 no.6/7:310-311 '60.
(EEAI 9:10)

1. Ministr, president Ceskoslovenske akademie ved.
(Czechoslovakia--Agriculture)

ACCESSION NR: AP4016580 Z/0039/64/025/002/0085/0088

AUTHOR: Nejedly, Zdenek (Engineer, candidate of sciences)

TITLE: A star-type circulator

SOURCE: Slaboproudy obzor, v. 25, no. 2, 1964, 85-88

TOPIC TAGS: star-type circulator, plane-wave scattering, waveguide

ABSTRACT: This article presents the approximative theory of the function of a star-type circulator. This theory is based on the solution of the diffraction problem for a corresponding arrangement of the gyromagnetic obstacle. The theory is applied to a four-armed star-type circulator. The results are compared with the experiment. Orig. art. has: 2 figures and 11 formulas.

ASSOCIATION: Vyzkumny ustav pro sdelovaci techniku A. S. Popova, Prague (Communications Research Institute)

SUBMITTED: 19Jul63 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: GE NO REF SOV: 000 OTHER: 007

Card 1/1

[illegible], [illegible]; [illegible], [illegible]; [illegible], [illegible].

1. Institute for [illegible] Research, Production and Application of Radioisotopes, Prague; [illegible] Institute of [illegible] Chemistry and Biochemistry, Prague

Prague, Collection of Czechoslovak Chemical Communications, No 10, 1965, pp 35[illegible]1-[illegible]

"Preparation of [illegible] Labelled [illegible] of High Specific Activity from the Alga [illegible] [illegible]."

NEJEPINSKY, Milos, ins.

Propulsion of VTOL and STOL aircrafts. Zpravodaj VZLU no.1:41-43 '62.

NEJEPINSKY, Milos, ins.

Drives of aircrafts with short or vertical take-off and landing. Letecky obzor 7 no.2:50-51 F '63.

PHASE I BOOK EXPLOITATION CZECH/5660

Nejepsa, A., Engineer, and Miloslav Vlk, Engineer, Resp. Eds.

Lisování a kování v ČSSR a SSSR; současný stav a perspektivy rozvoje (Stamping and Forging in the ChSSR and USSR; the Present State and Prospects for Development) Prague, SNTL, 1961. 337 p. 1150 copies printed.

The part "Lisování a kování v SSSR" translated by A. Nejepsa.

Managing Ed. for Literature on Mechanical Engineering and Chief Ed.: Ota Kraus; Tech. Ed.: Jiří Appl.

PURPOSE: This collection of articles is intended for those interested in advanced pressworking methods.

COVERAGE: The present state of the stamping and forging technologies in the ChSSR and USSR is discussed. The first part, written by Czechoslovak authors, is concerned with the development of metal pressworking techniques in the ChSSR and discusses the production of large forgings,

Card [redacted]

extrusion of metals, stamping of automobile bodies, and mechanization of old plants. The second part is written by Soviet specialists, and discusses die forging in presses, upsetting, forge rolling, stamping, extrusion, crossrolling, and forging on hydraulic presses, crank presses, and drop hammers. No personalities are mentioned. References accompany various chapters. There are 47 references (mostly Czechoslovak) in the first part; the second part contains 91 references (all Soviet.)

TABLE OF CONTENTS:

STAMPING AND FORGING IN THE ChSSR

NEJEPSA, ROBERT

Nejepsa, Robert Priklady z pruznosti. (Vyd. 2.) Praha, Statni pedagogicke nakl., 1952. 103 p. (Ucebni texty vysokych skol) Examples of elasticity. Diagrs.)

SO: Monthly List of East European Accessions, L C., Vol. 3, No. 1, Jan. 1954, Uncl.

NEJEPSA, Robert

Zmery naprevovych tlaku lokomotiv a motorovych vozu typu Bo Bo. (1. vyd., Praha, Nakl. Ceskoslovenske akademie ved, 1953. 125 p. (Ceskoslovenska akademie ved. Sekce technicka) (Changes of axle loads in locomotives and motor vehicles of the Bo Bo type. 1st ed. English, French, German, and Russian summaries. Bibl., diagrs.)

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. , No. 6 June 1956, Uncl.